BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

FILED
08/15/22
03:26 PM
R2207005

Order Instituting Rulemaking to Advance Demand Flexibility Through Electric Rates.	Rulemaking 22-07-005

OPENING COMMENTS OF THE PUBLIC ADVOCATES OFFICE ON ORDER INSTITUTING RULEMAKING TO ADVANCE DEMAND FLEXIBILITY THROUGH ELECTRIC RATES

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August 15, 2022

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I. INTRODUCTION AND SUMMARY OF RECOMMENDATIONS

In accordance with Rule 6.2 of the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), the Public Advocates Office (Cal Advocates) hereby submits these comments on the *Order Instituting Rulemaking to Advance Demand Flexibility Through Electric Rates* ("OIR" or "Rulemaking").[1]

On July 22, 2022, the Commission issued Rulemaking (R.) 22-07-005 inviting parties to file comments on demand flexibility policies and modifying electric rates to advance the following objectives: (a) enhance the reliability of California's electric system; (b) make electric bills more affordable and equitable; (c) reduce the curtailment of renewable energy and greenhouse gas emissions associated with meeting the state's future system load; (d) enable widespread electrification of buildings and transportation to meet the state's climate goals; (e) reduce long-term system costs through more efficient pricing of electricity; and (f) enable participation in demand flexibility by both bundled and unbundled customers.[2] California's rapidly changing electric grid and aggressive greenhouse gas reduction goals present new challenges and opportunities.

[1] The Rulemaking directs comments be filed 30 days after its effective date. The effective date of this Rulemaking is July 14, 2022. Therefore, the Public Advocates Office's comments are timely. See Rulemaking at p. 14, Ordering Paragraph 6.

[2] OIR at p. 1.

Coordinating demand flexibility could aid in meeting system needs like integrating renewable resources and accommodating new electric load from building electrification and transportation electrification by optimizing the use of existing supply and delivery resources.

This Rulemaking should include a preliminary focus on rate design measures and policies that advance equity and affordability principles while facilitating the Rulemaking's objectives of widespread electrification[3] and achieving climate objectives. Furthermore, as the Commission adopts measures for more widespread demand flexibility through electric rates, it should not expose customers to rate increases that they cannot reasonably foresee when they select rate plan options. The Commission should also include a review of the costs and benefits of implementing different demand flexibility options into the scope of the rulemaking. Additionally, ongoing efforts and pilots exploring varying dynamic pricing options will provide invaluable data and lessons. Such information can be leveraged to develop optimized rate designs that provide economic value to customers.

Cal Advocates recommends adding the following issues to the scoping memo:

- What changes to electricity rate designs should the Commission adopt to address affordability?[4]
- What are the costs and benefits of implementing different demand flexibility proposals?[5]

With regards to various aspects of demand flexibility, Cal Advocates' discussion includes several additional points. First, overall, the white paper correctly notes shortcomings with existing demand flexibility systems.[6] Second, the Commission should

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[3] OIR at p. 3. "Participants also noted that high electric rates will deter customers from transitioning from gas to electricity." Electrification under certain conditions may help reduce rates.

[4] See Section II, B. OIR at p. 3 identifies "income differentiated fixed charges" as a rate design lever to mitigate rate increases but did not include it in the list of issues in scope of this proceeding.

[5] See Section II.C.

[6] See Section II.A.

review pilots underway to evaluate optimal approaches for demand flexibility.[7] Third, the proceeding should identify what systems would need to be created, and what organizations would have the responsibility to develop, maintain, or operate these systems before implementing CalFUSE.[8]

II. DISCUSSION

A. Overall, the White Paper correctly identifies shortcomings with existing demand flexibility systems.

The White Paper correctly identifies a variety of shortcomings within the existing demand flexibility system. For example, with regard to Demand Response (DR), the White Paper identifies performing counter factual assessments for DR as a complex and technical process.[9] Data access issues compound the challenges Demand Response Providers (DRPs) face when trying to calculate counter factual loads for settlement. While necessary and appropriate to ensure customer privacy, utility data sharing rules[10] limit the ability of third parties to develop comparison control groups, as those third parties only have access to their participating customers' data.

Another issue limiting current DR that is discussed in the White Paper is DRP wholesale market bidding behavior. DRPs seek to avoid dispatch and mitigate service disruption to the customer by bidding high prices into the California Independent System Operator (CAISO) market, which in turn reduces the value of those resources to the grid.[11] As observed in the Demand Response Auction Mechanism (DRAM) Pilot, business models for DRPs rely primarily on capacity payments with little impetus for maximizing revenues in the energy market.[12] Comparatively, traditional generators have

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[7] See Section II.D.

[8] See Section II.E.

[9] White Paper at p. 25.

[10] See PG&E Rule 24, SCE Rule 24, and SDG&E Rule 32.

[11] White Paper at p. 25.

[12] Energy Division's Evaluation of the Demand Response Auction Mechanism Final Report [Public Version - Redact], January 4, 2019, at p. 60.

a financial incentive to dispatch in order to maximize revenue. On the other hand, DR participants usually have to ramp down their productivity or decrease comfort and convenience to provide energy when called. As such, it is difficult to align financial incentives, participant expectations, and grid needs all while ensuring ratepayer funds are being spent in a just and reasonable manner. Cal Advocates supports a review of demand flexibility in this proceeding to provide greater reliability and lower costs for ratepayers.

B. The scope of this proceeding should include a focus on rate-based solutions to address affordability.

High electricity rates are making electricity unaffordable for customers and deterring ratepayers from electrification. The Commission should initially address rate design measures that improve affordability, such as income-based fixed charges. The Commission should add the following issue to the scope of the proceeding: What changes to electricity rates should the Commission adopt to address affordability? If the Commission does not include this issue in the scope of the proceeding, it risks adopting policies that may meet other stated policy goals but are inconsistent with the Commission's rate design principles related to achieving affordability.[13]

Retail electric rates increases continue to far outpace inflation. For example, since 2009, average residential rates for each of California's large investor-owned utilities have increased by 65%-106%[14] whereas inflation increased by only 33%.[15] The recently approved Assembly Bill 205 allows for corrections to the implementation of the California Alternative Rates for Energy (CARE) discount and adoption of income-based fixed charges to help address electric rate affordability and facilitate electrification.[16] Also, an income-based fixed charge framework was developed in the Affordability

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[13] Decision (D.)15-07-001. *Decision on Residential Rate Reform for Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company and Transition to Time-of-Use Rates* at p. 28. ["Low-income and medical baseline customers should have access to enough electricity to ensure basic needs (such as health and comfort) are met at an affordable cost;"]

[14] Gathered from PG&E's annual electric true up filings SCE's and SDG&E's annual consolidated filings.

[15] https://www.bls.gov/data/inflation_calculator.htm

[16] https://legiscan.com/CA/text/AB205/2021

proceeding, R.18-07-006.[17] A ruling in this proceeding provided that changes to rate design related to affordability should be addressed in this proceeding.[18] An income-based fixed charge framework would better align rates with the manner in which costs are incurred, reduce bills for the most economically vulnerable customers, and spur widespread electrification of buildings and transportation.[19] This proposal would improve access to more affordable electricity for low-income customers and go further in achieving the State's climate goals.[20]

An income-based fixed charge could easily compliment demand flexibility strategies such as the California Flexible Unified Signal for Energy (CalFUSE) framework proposed in Energy Division's White Paper on Advanced Strategies for Demand Flexibility Management and Customer DER Compensation[21] (Staff White Paper). The Staff White Paper articulates that fixed charges can mitigate cost shifting concerns[22] by reducing fixed costs recovery embedded in the CalFUSE volumetric rate.[23] The CalFUSE framework discusses a composite price concept and recognizes that:

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[17] Order Instituting Rulemaking to Establish a Framework and Processes for Assessing the Affordability of Utility Service R.18-07-006. See Cal Advocates' comments served on August 1, 2022. https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M496/K396/496396840.PDF

[18] R.18-07-006, *Assigned Commissioner's Ruling Amending Ruling Of May 20, 2022 And Further Updating Proceeding Schedule For Phase 3 Of Proceeding, June 9, 2022* at p. 2. ["Rate reform that could include one or more of the above proposals and/or additional proposals such as expansion of critical peak pricing, time of use, fixed charges, or other rate mechanisms that may reduce rates to something that better reflects the marginal costs of electricity. These rate reform proposals are currently being evaluated in the Demand Flexibility initiative..."]

[19] Designing Electricity Rates for An Equitable Energy Transition at p. 5.

[20] Utility Costs and Affordability Of The Grid Of The Future An Evaluation Of Electric Costs, Rates And Equity Issues Pursuant To P.U. Code Section 913.1, May 2021, at p. 7.

[21] Released June 22, 2022, Staff White Paper available at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/demand-response/demand-response-workshops/advanced-der ---demand-flexibility-management/ed-white-paper---advanced-strategies-for-demand-flexibility-management.pdf.

[22] Staff White Paper at p. 55.

[23] Staff White Paper at p. 64.

> [T]here are other utility fixed costs which are not included in the CalFUSE composite including: customer-specific meter and final-line transformer (customer access costs), labor and administration, public purpose programs and wildfire mitigation costs. Staff proposes multiple approaches for the recovery of these fixed costs, including monthly fixed charges.[24]

An income-based fixed charge framework, like Cal Advocates' proposal, is designed to collect most of these costs, with the option to adjust as needed.

The pressing affordability concerns can be addressed with review of the implementation of the CARE discount and adoption of an income based fixed charge. The Commission should therefore prioritize this scoping issue in an initial phase of the proceeding.

C. The scope should include evaluation of the costs and benefits of various proposals.

The CalFUSE framework includes multiple proposals for implementing demand flexibility. Before implementing any proposals, the Commission needs to develop a robust record on the costs and benefits of various approaches, particularly given current affordability issues. The Commission should include the following scoping item to incorporate the issue: What are the costs and benefits of implementing different demand flexibility proposals?

D. The Commission should review pilots already underway to evaluate optimal approaches for demand flexibility.

It is imperative that the Commission evaluate ongoing pilots that explore real time pricing (RTP) and dynamic rates to evaluate optimal approaches for demand flexibility before adopting any proposals. While permanent RTP rates are currently limited to specific eligible customers, there are a number of RTP pilots that have been approved by the Commission and are in the implementation stages. These pilots will study, among other issues, customer response to dynamic price signals, alignment of such price signals

[24] Staff White Paper at p. 61.

with real time system grid conditions, incremental system cost savings over time of use rates, as well as any cost shifting/benefits to non-participating customers. The Commission should continue to uphold its rate design principle that rates should avoid cost shifting to other customers since unmitigated cost shifting will pose challenges to key objectives such as affordability, equity and enabling widespread electrification.

Table 1 compiles a list of ongoing RTP pilot programs. Three of these pilots are variations of the CalFUSE framework. Studying these ongoing efforts will provide lessons that the Commission should leverage to ensure that RTP rates provide the right opportunities for participating customers. Such lessons will also inform how to avoid unreasonable rate increases for non-participating customers.

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Table 1: Summary of Existing and Pending RTP Programs

Utility	Proceeding	Brief Summary of Program	Program Dates
PG&E	A.20-10-011[25]	Day-Ahead hourly RTP import and export rate for Battery Electric Vehicles	*October 2023 to October 2026
PG&E	A.19-11-019[26]	RTP pilot with same import rate design as the pilot in A.20-10-011 for residential, small business and agricultural customers. Also includes customer preference study.	*October 2023 to September 2025
PG&E	R.20-11-003[27]	Agricultural Pumping Dynamic Rate Pilot, implemented in coordination with Valley Clean Energy.	May 2022 – May 2024
SCE	n/a	RTP rate based on 7 pre-set prices which are triggered based on temperature and is available to non-residential customers only	1978 – Present
SCE	EPC-15-054[28]	RATES Epic Pilot Stage 1, proof of concept pilot for TeMix's transactive software platform.	2017 – 2019
SDG&E	R.18-12-006	Vehicle Grid Integration RTP rate (Power Your Drive) for commercial electrical vehicles with SDG&E-owned charging equipment	2016 – Present
SDG&E	A.21-11-006 and A.21-11-008 (consolidated)	RTP pilots directed by Commission in D.21-07-010 (GRC2)[29] and D.20-09-025 which directed SDG&E to propose a credit for export rate for EV customers.[30]	TBD

*Pending pilot expected dates

This Rulemaking provides a forum for holistic analysis and discussion of these pilots. Each pilot listed above has different rate designs, customer eligibility and

[25] The first phase of the proceeding was approved in D.21-11-017. Although the second phase of the proceeding, which focused on export compensation, has not been ruled on by the Commission PG&E intends to implement these rates at the same time.

[26] On June 22, 2022, the Commission has issued a proposed decision on PG&E's RTP Pilot for C&I customers. The timeline for stage 1 of the RTP pilot is included as Appendix A, Attachment E, in the Joint Motion and Settlement, filed January 14, 2022 in A.19-11-019.

[27] D.21-12-015 approved this pilot.

[28] CEC's Electric Program Investment Charge (EPIC) grant

[29] A.19-03-002, SDG&E GRC2

[30] The specifics pertaining to the rate design for this pending pilot is still under development. Energy Division has provided recommendations for SDG&E to modify its proposal. Energy Division recommends SDG&E propose an RTP import rate and a complimentary export rate rider.

evaluation strategies. Understanding the costs and benefits of each of these existing and pending pilots is crucial to ensure prudent development of additional dynamic rates.

E. Identify what systems would need to be created, and what organizations would have the responsibility to develop/maintain/operate these systems before implementing CalFUSE.

The CalFUSE framework presented in Energy Division's Demand Flexibility White Paper proposes a complete restructuring of electricity rates. Prior to the implementation of any of the six framework elements, the Commission must identify what systems need to be created, and what organizations will develop, fund, operate and maintain such systems. For example, CalFUSE element one proposes to develop a standardized, universal access platform conveying the current electricity price.[31] The Commission must first determine whether this element will use the California Energy Commission's (CEC) Market Informed Demand Automation Server (MIDAS) or if an entirely new platform will be needed. If the CEC's MIDAS database is used, the Commission must determine who will be responsible for funding MIDAS's maintenance and operation. If a new platform is needed, the Commission needs to determine who will be responsible for funding the platform, what will be the rate impact for IOU customers, and who will be responsible for maintaining the platform. Furthermore, element one suggests that participation by all the State's Utility Distribution Companies (UDCs) and Load Serving Entities (LSEs) would be necessary. The Commission must determine how the non-Investor Owned Utility (IOU) LSEs, such as community choice aggregators, will fit into this framework, how costs will be shared and what responsibility they will have.

As discussed above, the Commission must consider the cost and benefits of implementing the CalFUSE proposal. Determining what systems will need to be created, what organizations will be involved, and who will bear responsibility is an important first step in assessing the costs associated with this framework. These broader implementation questions must be considered before specific technical details.

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[31] Staff White Paper, Section 4.2.

III. CONCLUSION

Cal Advocates supports measures to ensure the affordability of electricity for ratepayers, and the Commission should adopt Cal Advocates recommendations contained herein.

Respectfully submitted,

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